

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	AU Docket No. 07-157
)	
Auction Of 700 MHz Band)	
Licenses Scheduled For January)	
16, 2008, Comment Sought On)	
Competitive Bidding Procedures)	
For)	
Auction 73		

When promulgating its rules on the upcoming 700 megahertz (MHz) spectrum auction, the Federal Communications Commission (FCC or Commission) should require that licensees of auctioned spectrum enable authorized public safety personnel to use their spectrum on a priority basis during critical emergencies. This provision would be in addition to the allocations already granted to public safety. Without such a requirement, our Nation will forgo one of the best opportunities it has to offer life-saving communications capabilities to emergency responders during its most serious disasters.

If the Commission cannot consider this approach at the current time for procedural reasons, then perhaps it will do so for blocks for which bids do not meet the reserve price. Per the Auction 73 Public Notice,¹ “the Commission will offer licenses for the A, B, and E Blocks subject to alternative performance requirements.” One such performance requirement might be to support public safety access in critical emergencies.

Even with new 700 MHz band broadband allocations to public safety, not enough spectrum will be available to support critical data-intensive applications for those protecting the lives and property of our citizens. At the same time, granting more spectrum to public safety agencies for contingencies may not be practical given the requirements for spectrum to support next-generation commercial wireless services. The solution is to share the spectrum. Allow winning bidders to use the spectrum as they deem appropriate on a day-to-day

¹ FCC Public Notice, Auction Of 700 MHz Band Licenses Scheduled For January 16, 2008, Comment Sought On Competitive Bidding Procedures For Auction 73, Paragraph 8, August 17, 2007.

basis so long as they temporarily relinquish it for emergency communications in response to significant crises.

The new capability would be an instance of “criticality driven spectrum access (CDSA),” which the Institute for Electrical and Electronics Engineers (IEEE) P1900.1 working group has defined as “spectrum access in which the precedence of radio transmissions is determined by message criticality rather than user class or type.” The Commission has referred to a similar notion of “ruthless preemption” in a previous notice, but CDSA need not be “ruthless.” Instead, it can be implemented cooperatively between commercial license holders and public safety agencies in the communities in which they operate. A variety of technical mechanisms could be implemented to cost-effectively incorporate CDSA features in the infrastructure for new commercial services.

CDSA is roughly analogous to commercial broadcast television (TV) and the public emergency broadcast system. TV licensees have used spectrum profitably for decades while still supporting periodic tests of the emergency broadcast system and allowing for its potential activation in a major emergency. The difference with CDSA is that public safety would now be able to support two-way broadband applications in such emergencies rather than simple broadcasts.

The Commission can provide adequate assurance to bidders that a CDSA requirement will not unduly devalue its licenses. CDSA would only be permitted in true regional emergencies and not for routine public safety communications. To protect bidders, the Commission might stipulate that public safety officials may only exercise CDSA precedence rights when risk to human life is imminent and when no other communications option is available, perhaps due to infrastructure failure or excessive network congestion. The Commission might also require that precedence assertions only be permitted when authorized on a case-by-case basis by a high ranking government official, such as a declaration of emergency by a state governor. In such times, license holders should willingly honor their civic, public interest obligation to protect the lives of the citizens of the community in which they do business.

If the Commission were to adopt a CDSA system, the Commission should stipulate that emergency use of auctioned spectrum is not a “takings”. Public safety agencies would not compensate licenses for the temporary use of its spectrum. However, the Commission may wish to consider requiring public safety agencies to fairly compensate licensees for building the infrastructure to support CDSA functionality.

When we live through another tragedy such as the events of September 11, 2001 or Hurricane Katrina, let us know in our hearts that we did everything we could to help our public servants communicate life-critical information as effectively as possible. We can achieve this objective by including a CDSA support requirement for bidders in the upcoming spectrum auction. Indeed, CDSA is a relatively simple, cost-effective compromise between the interests of public safety and commercial enterprises that we should not allow to pass us by.

I submit this statement as a private citizen. I have a professional background in wireless communications and am employed by a global strategy and technology consulting company that offers services related to public safety communications. I am an officer of IEEE Standards Coordinating Committee 41 on Dynamic Spectrum Access Networks, which could potentially standardize CDSA protocols. I am also a director of the Software Defined Radio Forum and have provided contractor staff support to the Federal Partnership for Interoperable Communications. Opinions expressed in this filing are my own and should not be attributed to any organization to which I am affiliated.

Respectfully submitted,

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